

Midterm Exam Format

This is what you can expect the format of the exam to be like. There will be six questions and this document tells you exactly the topics of each question so that you can prepare accordingly.

1. Compiling on the Linux Terminal

- class templates
- abstract classes
- base and derived classes

2. Catching Errors

- abstract classes and polymorphism
- pointers
- dynamic memory

3. Implementing class Templates

- dynamic memory allocation
- constructors
- destructors
- implementing template functions
- throwing exceptions
- creating class template objects of different data types
- error-handling with try-catch

4. Big-O worst-case runtime complexity

5. Implementing `ArrayBag` and `LinkedChain` functions

- traversing an array and linked list
- ability to use vectors
- understanding implementations of ADT functions

6. Abstract Classes

- purely virtual functions
- overriding a purely virtual function
- polymorphism

Note: *You should review all quizzes, lectures, and projects to fully prepare for the exam. The topics mentioned here are not the only things you should*

review if you want to get a good grade. Review anything that you are not sure about from slides on the course webpage.